



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/624,331	07/22/2003	Shinichi Nishikawa	15162/06050	6976
24367	7590	04/17/2006	EXAMINER	
SIDLEY AUSTIN LLP 717 NORTH HARWOOD SUITE 3400 DALLAS, TX 75201				DEHGHAN, QUEENIE S
		ART UNIT		PAPER NUMBER
		1731		

DATE MAILED: 04/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/624,331	NISHIKAWA, SHINICHI
	<b>Examiner</b>	<b>Art Unit</b>
	Queenie Dehghan	1731

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 22 July 2003.
- 2a) This action is **FINAL**.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-6 is/are rejected.
- 7) Claim(s) 5 is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 22 July 2003 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
 Paper No(s)/Mail Date \_\_\_\_\_
- 4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date. \_\_\_\_\_
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_\_

**DETAILED ACTION**

***Specification***

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

2. The abstract of the disclosure is objected to because it exceeds 150 words.

Correction is required. See MPEP § 608.01(b).

3. Claim 5 is objected to because of the following informalities: the term "vertical to an optical axis" is not the most appropriate term for limiting the orientation of the surface. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Art Unit: 1731

5. Claims 4 and 5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

6. Claim 4 is unclear because it recites that all the steps of claim 1 are performed while target set temperatures are maintained constant. One of the steps is to take out the molded glass element. If temperature of the mold is held constant, then glass is removed while it is still in the softened stage, which contradicts the molding operation. The claim will be interpreted to hold the temperature constant for the heating steps (preparation step, surface formation step and pressing step).

7. Claim 5 recites the limitation "the outer shape reference surface" in line 4. There is insufficient antecedent basis for this limitation in the claim.

#### ***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1 and 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Marechal et al. (4,734,118) in view of Nishikawa (2002/0053223). In figure 2, Marechal et al. disclose a method for shaping an optical element comprising preparing a lower mold (20) opposed to an upper mold (21) having optical molding surfaces (22),

Art Unit: 1731

where the lower mold is combined with an outer shape restricting surface (23) (col. 6 lines 18-21), forming a positioning reference surface on the rim of the optical element by heating the outer shape restricting surface combined with the lower mold surface with an induction heating coil (25), pressing the glass while still at a temperature at which it is deformable by bringing together the upper and lower molding surfaces (col. 3 lines 61-68 to col. 4 lines 1-4), and taking out the molded optical element (col. 4 lines 5-7). Marechal et al. further disclose using a temperature for the mold at which glass is softened, which would be higher than Tg-100°C in the reference formation and pressing step (col. 2 lines 62-65). Marechal et al. also disclose a similar mold structure comprising of a lower mold (1) opposed to an upper mold (2) having optical molding surfaces (4), where the lower mold is combined with an outer shaped restricting surface (3) in figure 1. Regarding claim 4, Marechal et al. disclose an example where the molds were prepared, the positioning reference surface is formed and the glass is pressed while at a constant temperature (of 331°C) (col. 8 lines 4-8). Regarding claim 5, Marechal et al. disclose a positioning reference surface that is non-circular in its cross-sectional view in figure 1. However, Marechal et al. do not disclose the dropping of glass on the lower mold. Nishikawa teach of a process where molten glass drop amount is adjusted by colliding the drop with a micro through hole disposed on the dropping path and pushing out a micro drop out of the hole and dropping onto a lower molding surface (abstract, figure 6). It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the micro drops of Nishikawa in

Art Unit: 1731

the method of Marechal et al. in order to control the amount of glass to be added to the mold.

10. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shimizu et al. (JP abstract 60-171231) in view of Parsons et al. (3,900,328) and Nishikawa (2002/0053223). Shimizu et al. disclose a process for manufacturing a molded optical lens comprising of preparing a bottom (1) opposed top die (2) with molding surfaces (11 and 12 respectively) and outer shape restricting surfaces (3R and 3L), forming a positioning reference surface on the rim of the lens, and pressing the glass by bringing the top and bottom dies together (abstract, drawings 1 & 2). Shimizu et al. do not disclose the heating elements of the molding operation or a removal step. Parsons et al. teach of a method for molding lenses by applying heat to the molds and removing the molded lens (col. 6 lines 9-13, 30-35), where in the temperature of the molds are above Tg-100°C (col. 7 lines 7-9, 19-21). Nishikawa teach of dropping glass on to a lower mold in figure 6. It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the heating of the molds and removal of the optical element steps of Parsons et al. and the dropping of the glass step of Nishikawa in the method of Shimizu et al. in order ensure that a controlled amount of glass is used and that it remains in a softened state for molding and do to experience a thermal shock when introduced to the molds, as taught by Parsons et al.

11. Regarding claims 2 and 3, Shimizu et al. disclose a molding assembly where the lower mold has a restricting surface forming a second positioning reference surface outside an effective diameter surface in drawings 1-6, wherein the surface is inherently

Art Unit: 1731

formed simultaneously with the forming of the positioning reference surface on the rim of the optical element as the molds are brought together as mentioned in claim 1 above.

12. Regarding claim 4, Shimizu et al. do not disclose a target temperature. However, Parsons et al. teach of a method for molds are prepared, softened glass is placed in the molds and pressed while the molds have been preheated to one set temperature (col. 6 lines 64-68 to col. 7 lines 1-4). Furthermore, Marechal et al. disclose an example where the molds were prepared, the positioning reference surface is formed and the glass is pressed while at a constant temperature (of 331°C) (col. 8 lines 4-8). It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize a constant temperature in the process of Shimizu et al. in order to ensure the proper amount of heat was applied while molding the lens.

13. Regarding claim 5, Shimizu et al. disclose a position reference surface that is non-circular in the cross sectional view in drawing 5 and 6.

14. Regarding claim 6, Shimizu et al. do not disclose a step of forming minute drops of glass. Nishikawa teach of a process where molten glass drop amount is adjusted by colliding the drop with a micro through hole disposed on the dropping path and pushing out a micro drop out of the hole and dropping onto a lower molding surface (abstract, figure 6). It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the micro drops of Nishikawa in the method of Shimizu et al. and Parsons et al. in order to control the amount of glass to be added to the mold.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Queenie Dehghan whose telephone number is (571)272-8209. The examiner can normally be reached on Monday through Friday 8:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Q Dehghan



STEVEN P. GRIFFIN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1700